

# TCC “ML” DESIGN



## ELECTRICAL AND DIMENSIONAL DATA

TCC aluminium multi-mount single phase dual capacitor asynchronous motors are manufactured to the latest design. All motors conform to IEC standard and offer a comprehensive range up to 3.7KW. They are suitable for applications where starting torque requirements are 1.8-2.5 times full load torque.

Please note it is recommended that single phase motors are not stop/started more than 15 times in a 1 hour period in order to allow safe discharge of capacitors.

# TCC Electrical Data

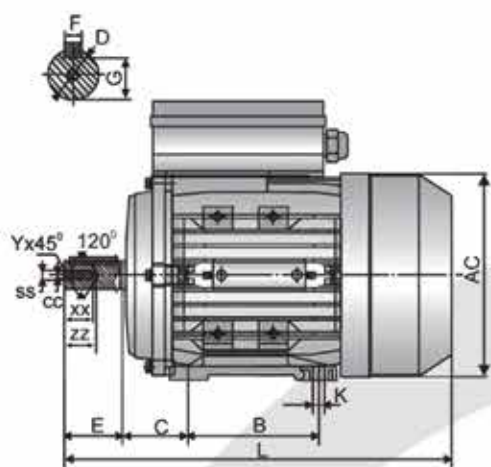
## 230V ELECTRICAL DATA

Model	Power (KW)	Current (A) 230V	Speed (r/min)	Eff. (%)	Power Factor (Cosφ)	Rate Torque (N.M)	T <sub>st</sub> /T <sub>e</sub> (Times)	T <sub>max</sub> /T <sub>e</sub> (Times)	Starting Current (A)	Run Capacitor (µF/V)	Start Capacitor (µF/V)	Noise dB (A)	W.T (Kg)
TCC 631-2	0.18	1.38	2710	63	0.9	0.63	2.5	1.6	8	10µF/450V	30µF/250V	70	3.9
TCC 632-2	0.25	1.89	2710	64	0.9	0.88	2.5	1.6	10	12µF/450V	40µF/250V	73	4.4
TCC 711-2	0.37	2.66	2780	65	0.93	1.27	2.5	1.8	15	12µF/450V	75µF/250V	75	6.1
TCC 712-2	0.55	3.78	2790	68	0.93	1.88	2.5	1.8	20	16µF/450V	100µF/250V	76	7
TCC 801-2	0.75	4.87	2800	72	0.93	2.56	2.5	1.8	30	20µF/450V	100µF/250V	76	9
TCC 802-2	1.1	7.04	2810	73	0.93	3.74	2.5	1.8	40	30µF/450V	150µF/250V	79	10.3
TCC 90S-2	1.5	9.48	2810	74	0.93	5.10	2.5	1.8	55	40µF/450V	200µF/300V	84	16.3
TCC 90L-2	2.2	13.57	2810	75	0.94	7.48	2.5	1.8	75	50µF/450V	250µF/300V	84	16.7
TCC 100L-2	3.0	17.83	2830	77	0.95	10.13	2.5	1.7	110	60µF/450V	400µF/300V	88	25
TCC 112M1-2	3.7	21.48	2850	78	0.96	12.40	2.5	1.7	140	60µF/450V	600µF/300V	90	33
TCC 112M2-2	4.0	22.18	2850	80	0.98	13.41	2.5	1.7	150	60µF/450V	600µF/300V	90	34.2
TCC 631-4	0.12	1.05	1350	55	0.9	0.85	2.5	1.6	6	10µF/450V	30µF/250V	64	4.1
TCC 632-4	0.18	1.55	1350	56	0.9	1.27	2.5	1.6	8.5	12µF/450V	40µF/250V	64	4.5
TCC 711-4	0.25	2.01	1380	60	0.9	1.73	2.5	1.7	10	12µF/450V	50µF/250V	66	5.9
TCC 712-4	0.37	2.84	1380	63	0.9	2.58	2.5	1.7	15	16µF/450V	75µF/250V	68	6.9
TCC 801-4	0.55	4.03	1400	66	0.9	3.75	2.5	1.8	20	20µF/450V	100µF/250V	71	9.6
TCC 802-4	0.75	5.25	1410	69	0.9	5.08	2.5	1.8	30	25µF/450V	100µF/250V	71	10.9
TCC 90S-4	1.1	7.24	1410	71	0.93	7.45	2.5	1.8	40	35µF/450V	150µF/250V	74	13.8
TCC 90L-4	1.5	9.61	1400	73	0.93	10.24	2.5	1.8	55	40µF/450V	200µF/300V	79	16.7
TCC 100L1-4	2.2	13.90	1430	74	0.93	14.70	2.5	1.8	75	50µF/450V	300µF/300V	79	22.8
TCC 100L2-4	3	18.70	1440	75	0.93	19.91	2.5	1.8	110	60µF/450V	500µF/300V	83	28.7
TCC 112M1-4	3.7	21.99	1440	77	0.95	24.55	2.5	1.7	140	60µF/450V	600µF/300V	86	31
TCC 112M2-4	4.0	22.41	1440	80	0.97	26.54	2.5	1.7	150	60µF/450V	600µF/300V	86	32.8

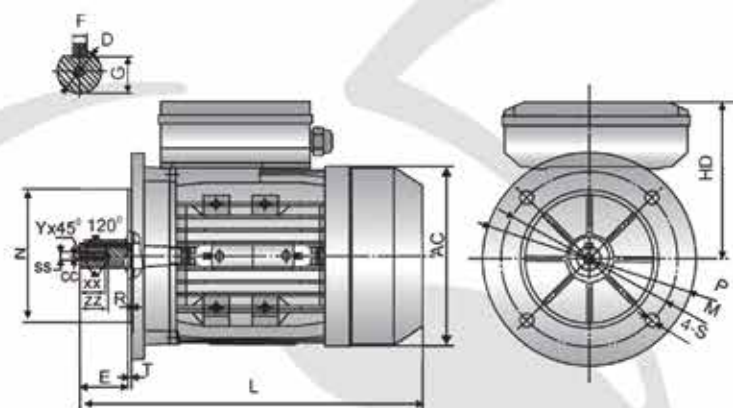
## 110V ELECTRICAL DATA

Model	Power (KW)	Current (A) 110V	Speed (r/min)	Eff. (%)	Power Factor (Cosφ)	Rate Torque (N.M)	T <sub>st</sub> /T <sub>e</sub> (Times)	T <sub>max</sub> /T <sub>e</sub> (Times)	Starting Current (A)	Run Capacitor (µF/V)	Start Capacitor (µF/V)	Noise dB (A)	W.T (Kg)
TCC 631-2	0.18	2.89	2710	63	0.9	0.63	1.8	1.6	16	30µF/250V	100µF/125V	70	4.2
TCC 632-2	0.25	3.95	2710	64	0.9	0.88	1.8	1.6	20	40µF/250V	100µF/125V	73	4.7
TCC 711-2	0.37	5.4	2780	67	0.93	1.27	2.0	1.8	30	40µF/250V	200µF/125V	75	5.3
TCC 712-2	0.55	7.68	2790	70	0.93	1.88	2.0	1.8	40	60µF/250V	300µF/125V	76	7.4
TCC 801-2	0.75	9.97	2800	72	0.95	2.56	2.5	1.8	60	80µF/250V	400µF/125V	76	9.5
TCC 802-2	1.1	14.04	2810	75	0.95	3.74	2.5	1.8	80	100µF/250V	600µF/125V	79	11.2
TCC 90S-2	1.5	18.89	2810	76	0.95	5.10	2.5	1.8	110	140µF/250V	800µF/125V	84	14
TCC 90L-2	2.2	27.34	2810	77	0.95	7.48	2.5	1.8	150	160µF/250V	1000µF/125V	84	17
TCC 100L-2	3	36.34	2830	79	0.95	10.13	2.5	1.7	220	180µF/250V	1400µF/125V	88	25
TCC 631-4	0.12	2.2	1350	55	0.9	0.86	2.5	1.6	12	30µF/250V	100µF/125V	64	4.1
TCC 632-4	0.18	3.25	1350	56	0.9	1.27	1.8	1.6	17	40µF/250V	100µF/125V	64	4.4
TCC 711-4	0.25	4.21	1380	60	0.9	1.73	1.8	1.7	20	40µF/250V	150µF/125V	66	5.9
TCC 712-4	0.37	5.93	1380	63	0.9	2.56	2.0	1.7	30	40µF/250V	200µF/125V	68	6.9
TCC 801-4	0.55	8.42	1400	66	0.9	3.75	2.0	1.8	40	70µF/250V	300µF/125V	71	9.6
TCC 802-4	0.75	10.96	1410	69	0.9	5.08	2.5	1.8	60	90µF/250V	400µF/125V	71	10.8
TCC 90S-4	1.1	14.73	1410	73	0.93	7.45	2.5	1.8	80	120µF/250V	600µF/125V	74	13.5
TCC 90L-4	1.5	19.81	1400	74	0.93	10.24	2.5	1.8	110	140µF/250V	800µF/125V	79	16.5
TCC 100L-4	2.2	28.3	1430	76	0.93	14.70	2.5	1.8	150	170µF/250V	1300µF/125V	79	24
TCC 100L2-4	3	38.09	1440	77	0.93	19.91	2.5	1.8	220	200µF/250V	1600µF/125V	83	30

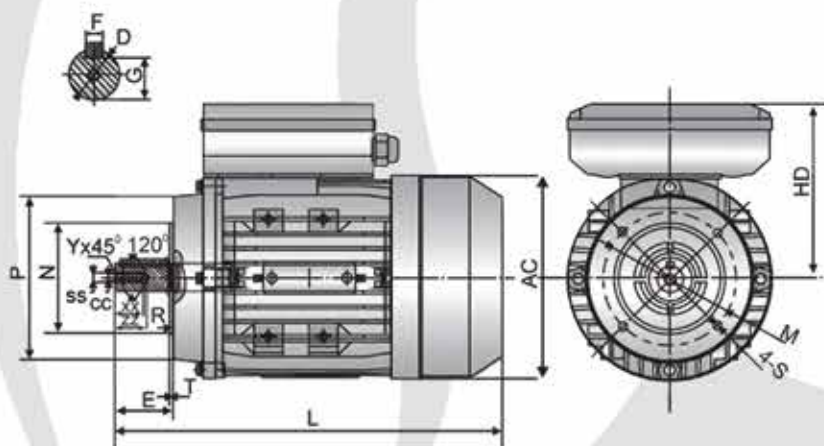
# TCC Series Dimensional Data



TCC ML B3



TCC ML B5



TCC ML B14

Frame Size	Mounting Dimensions																			Overall Dimensions					Shaft End Screw Dimensions				
	IM B14									IM B5																			
	A	B	C	D	E	F	G	H	K	M	N	P	R	S	T	M	N	P	R	S	T	AA	AC	AD	HD	L	SS	XX	ZZ
63	100	80	40	11	23	4	8.5	63	7X10	75	60	90	0	M5	2.5	115	95	140	0	φ 10	3.0	120	130	179	116	212	M4	10	15
71	112	90	45	14	30	5	11	71	7X10	85	70	105	0	M6	2.5	130	110	160	0	φ 10	3.5	132	145	194	123	255	M5	12	18
80	125	100	50	19	40	6	15.5	80	10X13	100	80	120	0	M6	3.0	165	130	200	0	φ 12	3.5	157	165	223	143	290	M6	18	22
90S	140	100	56	24	50	8	20	90	10X13	115	95	140	0	M8	3.0	165	130	200	0	φ 12	3.5	172	185	240	150	335	M8	20	25
90L	140	125	56	24	50	8	20	90	10X13	115	95	140	0	M8	3.0	165	130	200	0	φ 12	3.5	172	185	240	150	365	M8	20	25
100L	160	140	63	28	60	8	24	100	12X15	130	110	160	0	M8	3.5	215	180	250	0	φ 15	4.0	196	205	260	160	398/416	M10	22	28
112M	190	140	70	28	60	8	24	112	12X15	130	110	160	0	M8	3.5	215	180	250	0	φ 15	4.0	222	230	295	183	416	M10	22	28

# TPC “MY” DESIGN



## ELECTRICAL AND DIMENSIONAL DATA

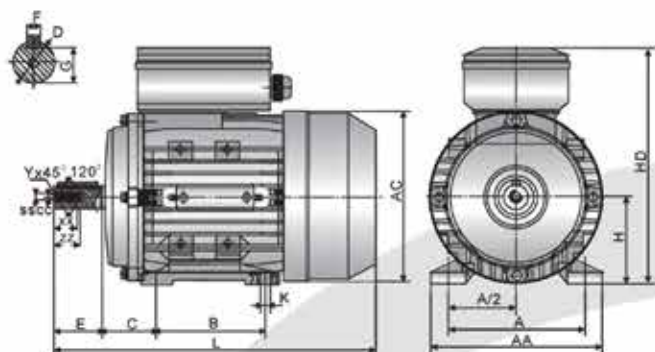
TPC aluminium multi-mount single phase permanent capacitor asynchronous motors adapt the same frame configurations as the TCC range with a smaller terminal box arrangement and a high resistance rotor. The TPC range is suitable for most fan and square law torque applications where starting torque requirements are 0.5-0.9 times full load torque.

Please note it is recommended that single phase motors are not stop/started more than 15 times in a 1 hour period in order to allow safe discharge of capacitors.

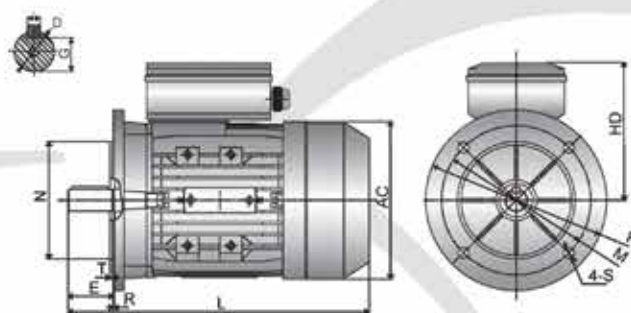
# TPC Series Electrical Data

Model	Power (KW)	Current (A)	Speed (r/min)	Eff (%)	Power Factor (CosΦ)	T <sub>st</sub> /T <sub>n</sub> (Times)	T <sub>max</sub> /T <sub>n</sub> (Times)	Starting Current (A)	Run Capacitor (μF/V)	Noise dB(A)	W.T (Kg)
TPC 5612	0.09	0.80	2740	54	0.91	0.69	1.8	2.5	4μF/450V	67	2.8
TPC 5622	0.12	0.90	2760	60	0.93	0.69	1.8	3.5	6μF/450V	67	3.05
TPC 5632	0.18	1.40	2760	62	0.93	0.55	1.8	4.5	8μF/450V	70	3.5
TPC 6312	0.18	1.40	2760	62	0.93	0.55	1.8	4.5	8μF/450V	70	4.1
TPC 6322	0.25	1.70	2780	66	0.93	0.55	1.8	6	10μF/450V	70	4.5
TPC 6332	0.37	2.50	2780	67	0.93	0.45	1.65	8	12μF/450V	75	5.25
TPC 711-2	0.37	2.60	2640	66	0.94	0.72	1.65	8	14μF/450V	75	6.1
TPC 712-2	0.55	3.60	2760	71	0.95	0.7	1.8	14	20μF/450V	75	7.7
TPC 801-2	0.75	4.50	2735	73	0.98	0.68	1.75	16	25μF/450V	75	10.3
TPC 802-2	1.10	6.60	2720	74	0.98	0.65	1.8	23	35μF/450V	78	11.8
TPC 803-2	1.50	9.20	2730	74	0.98	0.65	1.8	31	50μF/450V	78	13.6
TPC 90S-2	1.50	8.50	2755	76	0.98	0.65	1.8	31	50μF/450V	80	14.6
TPC 90L-2	2.20	12.30	2765	77	0.98	0.65	1.8	51	70μF/450V	80	17.8
TPC 100L-2	3.00	16.90	2765	77	0.99	0.55	1.75	64	90μF/450V	83	23.7
TPC 5614	0.06	0.60	1360	50	0.94	0.75	1.75	2	4μF/450V	63	3.3
TPC 5624	0.09	0.80	1360	52	0.94	0.6	1.75	3	6μF/451V	63	3.6
TPC 5634	0.12	1.30	1370	52	0.92	0.6	1.75	3	8μF/452V	65	4.1
TPC 6314	0.12	1.30	1370	52	0.92	0.6	1.75	3	8μF/453V	65	4.45
TPC 6324	0.18	1.50	1370	54	0.94	0.6	1.6	4	10μF/450V	65	5.05
TPC 6334	0.25	2.00	1370	58	0.95	0.6	1.6	5	12μF/450V	65	5.4
TPC 711-4	0.25	2.00	1320	56	0.94	0.75	1.6	5	14μF/450V	65	6.2
TPC 712-4	0.37	2.90	1325	58	0.94	0.7	1.55	7	20μF/450V	68	7.3
TPC 801-4	0.55	3.90	1340	64	0.94	0.7	1.7	11	25μF/450V	73	10.1
TPC 802-4	0.75	5.30	1340	64	0.94	0.7	1.75	15	35μF/450V	73	11.4
TPC 90S-4	1.10	7.00	1355	72	0.95	0.68	1.8	22	50μF/450V	75	14.4
TPC 90L-4	1.50	9.30	1360	74	0.95	0.68	1.8	32	50μF/450V	78	17.5
TPC 100L1-4	2.20	12.60	1390	78	0.97	0.48	1.75	49	70μF/450V	80	24.5
TPC 100L2-4	3.00	16.50	1390	79	0.99	0.45	1.6	61	90μF/450V	80	32
TPC 6316	0.09	0.92	900	46	0.92	0.8	1.45	2	8μF/464V	63	5.1
TPC 6326	0.12	1.05	900	54	0.92	0.75	1.45	3	11μF/465V	63	6
TPC 7116	0.18	1.55	900	55	0.92	0.7	1.5	4	16μF/466V	68	6.3
TPC 7126	0.25	2.07	900	57	0.92	0.68	1.5	5	20μF/467V	68	7.6
TPC 8016	0.37	2.82	900	62	0.92	0.68	1.6	8	25μF/468V	68	9
TPC 8026	0.55	4.08	900	63	0.93	0.68	1.6	14	30μF/469V	70	11.6
TPC 9096	0.75	5.20	900	66	0.95	0.65	1.6	16	40μF/470V	70	13.5
TPC 90L6	1.10	7.51	900	67	0.95	0.62	1.6	25	50μF/471V	70	16.2

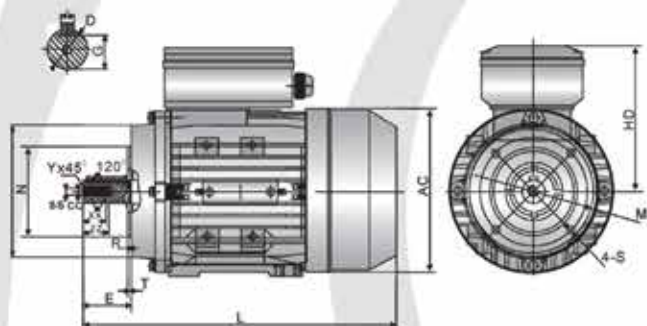
# TPC Series Dimensional Data



TPC MY B3



TPC MY B5



TPC MY B14

Frame Size	Mounting Dimensions																			Overall Dimensions					Shaft End Screw Dimensions				
	A	B	C	D	E	F	G	H	K	IM B14					IM B5														
	M	N	P	T	R	S	M	N	P	T	R	S	AA	AC	AD	HD	L	SS	XX	ZZ									
56	90	71	36	φ9	20	3	7.2	56	5.8x8.8	φ65	φ50	φ80	2.5	0	M5	φ100	φ80	φ120	3.0	0	φ7	110	φ117	144	88	196	M3	9	12
63	100	80	40	φ11	23	4	8.5	63	7x10	φ75	φ60	φ90	2.5	0	M5	φ115	φ95	φ140	3.0	0	φ10	120	φ130	181	118	220	M4	10	14
71*	112	90	45	φ14	30	5	11	71	7x10	φ85	φ70	φ105	2.5	0	M6	φ130	φ110	φ160	3.5	0	φ10	132	φ147	196	125	241/255	M5	12	17
80	125	100	50	φ19	40	6	15.5	80	10x13	φ100	φ80	φ120	3.0	0	M6	φ165	φ130	φ200	3.5	0	φ12	160	φ163	226	146	290	M6	16	21
90S	140	100	56	φ24	50	8	20	90	10x13	φ115	φ95	φ140	3.0	0	M8	φ165	φ130	φ200	3.5	0	φ12	175	φ183	243	153	312	M8	19	25
90L	140	125	56	φ24	50	8	20	90	10x13	φ115	φ95	φ140	3.0	0	M8	φ165	φ130	φ200	3.5	0	φ12	175	φ183	243	153	337/367	M8	19	25
100L**	160	140	63	φ28	60	8	24	100	12x15	φ130	φ110	φ160	3.5	0	M8	φ215	φ180	φ250	4.0	0	φ15	198	φ205	265	165	369/387	M10	22	30

\*\* This frame size has two housing sizes, the rated output is for the normal "L" size and increased output is for the large "L" size (refer to the figures in the brackets "()").